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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,463	07/03/2001	Daniel Gens	(H)99DGE1538	2360

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EXAMINER	
LESPERANCE, JEAN E	
ART UNIT	**PAPER NUMBER**
2629	

DATE MAILED: 04/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/720,463	GENS, DANIEL	
	Examiner	Art Unit	
	Jean E Lesperance	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 February 2006* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *7-3-2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. The amendment filed February 16, 2006 is entered and claims 1-25 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-11, 14, 16-25 are rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent # 6,130,666 ("Persidsky") in view of US Patent # 6,577,299 (Schiller et al.") and further in view of US Patent # 4,638,118 ("Wang et al.").

As for claim 1, Persidsky teaches an apparatus comprising a writing instrument and a writing pad for recording a data record (A self-contained pen computer which is capable of collecting and recording data representative of handwritten strokes of the pen, and displaying such data in a display screen which is a part of the pen. In the housing of the pen, a pressure sensor is included at the tip of the pen, and a motion sensor which outputs signals describing the motion of the pen, so that handwritten data

can be acquired without the need for a special writing surface (abstract)), wherein said data record (a self-contained pen computer which allows its user to record multiple handwritten images of any form in the pen's memory (column 1, lines 63-65) contains

data corresponding to information set down on the writing pad with the aid of the writing instrument, in particular written text and/or a drawing (a self-contained pen computer device that collects and stores handwritten data without requiring a special writing surface, and which has the capability of displaying such data in a display integrally formed with the device (column 1, lines 14-18),

positions on the writing pad, said positions being associated with said information (the user repositions cursor 50 to any position in display 24 by moving writing tip 12 and at the same time not activating pressure sensor 14 or erase button 38 (column 5, lines 51-54),

a further identifier assigned to the writing pad, and wherein said recording is activated by the production of said information (FIG. 12 shows a mode flowchart. In pattern recognition mode, the pen computer would recognize handwritten images in image memory 22, and identify and store them as predefined symbols such as ASCII characters in a designated part of image memory 22 (column 6, lines 44-48). Accordingly, Persidsky teaches all the claimed limitations as recited in claim 1 with the exception of providing a position determination device that absolutely determines the position of the writing instrument on the writing pad and wherein an absolute determination of the position of the writing instrument.

However, Schiller et al. teach the pen's absolute position measurement subsystem is operated at intervals to reset the position determination (column 3, lines 59-61) and by computing and recording this periodically, the movement of the pen on the writing surface is tracked (column 11, lines 15-17) and where the diagram of Figure 10C represents the case of surface wave ultrasound that travels on the writing surface and the pen position on page Fig.16.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the absolute position as taught by Schiller et al. in the self contained pen computer disclosed by Persidsky because this would provide an electronic portable wireless pen that overcomes disadvantages of prior approaches.

Accordingly, the combination of Persidsky and Schiller et al. teaches al the claimed limitations with the exception of providing with reference to the writing pad is performed via an area coding designed as at least one marking on said writing pad.

However, Wang et al. teach providing key zones on the writing surface of the touch pad allows entry of freeform writing as well as key coded character and commands without having to switch modes between a writing pad and a separate keyboard. Each key zone can be activated by touching any location within the zone (column 3, lines 24-29) where Fig.1 (16) is the marking on said writing surface.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the key coded ad taught by Wang et al. in the modified system disclosed by Persidsky and Schiller et al. because this would identify the

coordinate value along one dimension of the writing surface of a point at which writing stimuli are being received.

As for claim 2, Persidsky teaches the user repositions cursor 50 to any position in display 24 by moving writing tip 12 and at the same time not activating pressure sensor 14 or erase button 38 (first means or absolute position), the user can move writing tip 12 along a surface to reposition cursor 50 or, because the preferred embodiment utilizes accelerometers for the movement sensor 16, writing tip 12 can be moved through the air as a means to repositioning cursor 50 (second means or relative position) (column 5, lines 51-58) and it is understood that once the writing tip is in the air it is converted from two-dimensional to three-dimensional and becomes faster because it does not have to deal with friction of a writing surface.

As for claim 3, Persidsky teaches the user repositions cursor 50 to any position in display 24 by moving writing tip 12 and at the same time not activating pressure sensor 14 or erase button 38 (first means or absolute position), the user can move writing tip 12 along a surface to reposition cursor 50 or, because the preferred embodiment utilizes accelerometers for the movement sensor 16, writing tip 12 can be moved through the air as a means to repositioning cursor 50 (second means or relative position) (column 5, lines 51-58) and it is understood that once the writing tip is in the air it is converted from two-dimensional to three-dimensional and becomes faster because it does not have to deal with friction of a writing surface.

As for claim 4, Persidsky teaches accelerometers 21 and 23 are oriented perpendicularly to each other in the same plane to sense acceleration in at least two

perpendicular directions in a plane, the X and Y directions. Accelerometer 25 is oriented perpendicularly to that plane to sense acceleration in the Z direction (column 3, lines 59-64), the user moves writing tip 12, cursor 50 moves in a direction and by a distance directly corresponding to the movement of writing tip 12 (column 5, lines 16-25-27).

As for claim 5, Persidsky teaches the transmitter could use infra red or radio frequency transmission means (column 6, lines 54 and 55).

As for claim 6, Persidsky teaches processor and image memory Fig.3 (22 and 40).

As for claim 7, Persidsky teaches the transmitter could use infra red or radio frequency transmission means (column 6, lines 54 and 55).

As for claim 8, Persidsky teaches Accelerometers 21 and 23 are oriented perpendicularly to each other in the same plane to sense acceleration in at least two perpendicular directions in a plane, the X and Y directions. Accelerometer 25 is oriented perpendicularly to that plane to sense acceleration in the Z direction (column 3, lines 59-64) and the distance determination program integrates the digitized acceleration signals from movement sensor 16 to determine distance (column 3, lines 11-13).

As for claim 9, Persidsky teaches a processor (40) corresponding to a computer, image memory 22 to preserve any collected data.

As for claim 10, Persidsky teaches Program memory 26 also holds all the software necessary for processor 40 to perform all pen computer functions such as acquiring, storing, displaying, editing, and recognizing handwritten data, as well as controlling the user interface (column 4, lines 20-23).

As for claim 11, Persidsky teaches a self-contained pen computer Fig.1 which is portable just like a watch or an electronic notebook.

As for claim 14, Persidsky teaches a image memory (22) which is a buffer.

As for claim 16, Persidsky teaches a self-contained pen computer which is capable of collecting data which is digital code (column 2, lines 15- and 16).

As for claim 17, Persidsky teaches the user moves writing tip 12, cursor 50 moves in a direction and by a distance directly corresponding to the movement of writing tip 12. This is analogous to moving a pointer or cursor across a computer screen using a mouse, roller ball, accupoint, or track pad input device (all in two-dimensional) (column 5, lines 25-29), the pen computer has predefined fields into which handwritten data can be entered. As shown in FIG. 7, these fields appear as printed text characters or symbols on the left side of the rows in display 24 and handwritten data appears to the right of each field (column 6, lines 23-27). Accordingly, Persidsky teaches all the claimed limitations as recited in claim 1 with the exception of providing an absolute determination of the position of the writing instrument.

However, Schiller et al. teach the pen's absolute position measurement subsystem is operated at intervals to reset the position determination (column 3, lines 59-61) and by computing and recording this periodically, the movement of the pen on the writing surface is tracked (column 11, lines 15-17) and where the diagram of Figure 10C represents the case of surface wave ultrasound that travels on the writing surface and the pen position on page Fig.16.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the absolute position as taught by Schiller et al. in the self contained pen computer disclosed by Persidsky because this would provide an electronic portable wireless pen that overcomes disadvantages of prior approaches.

Accordingly, the combination of Persidsky and Schiller et al. teaches al the claimed limitations with the exception of providing with reference to the writing pad is performed via an area coding designed as at least one marking on said writing pad.

However, Wang et al. teach providing key zones on the writing surface of the touch pad allows entry of freeform writing as well as key coded character and commands without having to switch modes between a writing pad and a separate keyboard. Each key zone can be activated by touching any location within the zone (column 3, lines 24-29) where Fig.1 (16) is the marking on said writing surface.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the key coded ad taught by Wang et al. in the modified system disclosed by Persidsky and Schiller et al. because this would identify the coordinate value along one dimension of the writing surface of a point at which writing stimuli are being received.

As for claim 18, Persidsky teaches a pressure sensor in said writing tip and connected to said processor for sensing engagement with a writing surface (column 8, lines 63-65). It is inherent in the writing surface art to have a form of magnetic layer and a linear or non-linear magnetic array to facilitate the writing pen to conduct with the surface.

As for claim 19, Persidsky teaches a pressure sensor in said writing tip and connected to said processor for sensing engagement with a writing surface (column 8, lines 63-65). It is inherent in the writing surface art to have a form of magnetic layer and a linear or non-linear magnetic array to facilitate the writing pen to conduct with the surface.

As for claim 20, Persidsky teaches the user moves writing tip 12, cursor 50 moves in a direction and by a distance directly corresponding to the movement of writing tip 12. This is analogous to moving a pointer or cursor across a computer screen using a mouse, roller ball, accupoint, or track pad input device (all in two-dimensional) (column 5, lines 25-29), the pen computer has predefined fields into which handwritten data can be entered. As shown in FIG. 7, these fields appear as printed text characters or symbols on the left side of the rows in display 24 and handwritten data appears to the right of each field (column 6, lines 23-27).

As for claim 21, Persidsky teaches an apparatus comprising a writing instrument and a writing pad for recording a data record (A self-contained pen computer which is capable of collecting and recording data representative of handwritten strokes of the pen, and displaying such data in a display screen which is a part of the pen. In the housing of the pen, a pressure sensor is included at the tip of the pen, and a motion sensor which outputs signals describing the motion of the pen, so that handwritten data can be acquired without the need for a special writing surface (abstract)), wherein said data record (a self-contained pen computer which allows its user to record multiple handwritten images of any form in the pen's memory (column 1, lines 63-65) contains

data corresponding to information set down on the writing pad with the aid of the writing instrument, in particular written text and/or a drawing (a self-contained pen computer device that collects and stores handwritten data without requiring a special writing surface, and which has the capability of displaying such data in a display integrally formed with the device (column 1, lines 14-18),

positions on the writing pad, said positions being associated with said information (the user repositions cursor 50 to any position in display 24 by moving writing tip 12 and at the same time not activating pressure sensor 14 or erase button 38 (column 5, lines 51-54),

a further identifier assigned to the writing pad, and wherein said recording is activated by the production of said information (FIG. 12 shows a mode flowchart. In pattern recognition mode, the pen computer would recognize handwritten images in image memory 22, and identify and store them as predefined symbols such as ASCII characters in a designated part of image memory 22 (column 6, lines 44-48). Accordingly, Persidsky teaches all the claimed limitations as recited in claim 1 with the exception of providing a position determination device that absolutely determines the position of the writing instrument on the writing pad and wherein an absolute determination of the position of the writing instrument.

However, Schiller et al. teach the pen's absolute position measurement subsystem is operated at intervals to reset the position determination (column 3, lines 59-61) and by computing and recording this periodically, the movement of the pen on the writing surface is tracked (column 11, lines 15-17) and where the diagram of Figure

10C represents the case of surface wave ultrasound that travels on the writing surface and the pen position on page Fig.16.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the absolute position as taught by Schiller et al. in the self contained pen computer disclosed by Persidsky because this would provide an electronic portable wireless pen that overcomes disadvantages of prior approaches.

Accordingly, the combination of Persidsky and Schiller et al. teaches al the claimed limitations with the exception of providing with reference to the writing pad is performed via an area coding designed as at least one marking on said writing pad.

However, Wang et al. teach providing key zones on the writing surface of the touch pad allows entry of freeform writing as well as key coded character and commands without having to switch modes between a writing pad and a separate keyboard. Each key zone can be activated by touching any location within the zone (column 3, lines 24-29) where Fig.1 (16) is the marking on said writing surface.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize the key coded ad taught by Wang et al. in the modified system disclosed by Persidsky and Schiller et al. because this would identify the coordinate value along one dimension of the writing surface of a point at which writing stimuli are being received.

As for claim 22, Persidsky teaches Processor 40 is used to process digitized movement signals to determine the distance and direction writing tip 12 has moved in a given time in order to track the handwritten pattern as it is being drawn. Processor 40

uses a direction detection and distance determination program in a program memory 26 to determine the distance and direction writing tip 12 has moved in a given time. The distance determination program integrates the digitized acceleration signals from movement sensor 16 to determine distance (column 4, lines 4-15).

As for claim 23, Persidsky teaches the user repositions cursor 50 to any position in display 24 by moving writing tip 12 and at the same time not activating pressure sensor 14 or erase button 38 (first means or absolute position), the user can move writing tip 12 along a surface to reposition cursor 50 or, because the preferred embodiment utilizes accelerometers for the movement sensor 16, writing tip 12 can be moved through the air as a means to repositioning cursor 50 (second means or relative position) (column 5, lines 51-58) and it is understood that once the writing tip is in the air it is converted from two-dimensional to three-dimensional and becomes faster because it does not have to deal with friction of a writing surface.

As for claim 24, Persidsky teaches accelerometers 21 and 23 are oriented perpendicularly to each other in the same plane to sense acceleration in at least two perpendicular directions in a plane, the X and Y directions. Accelerometer 25 is oriented perpendicularly to that plane to sense acceleration in the Z direction (column 3, lines 59-64), the user moves writing tip 12, cursor 50 moves in a direction and by a distance directly corresponding to the movement of writing tip 12 (column 5, lines 16-25-27).

As for claim 25, Persidsky teaches the overall process of drawing and erasing handwritten data in display 24 is similar to drawing and erasing with a mouse in a computer paint program (column 6, lines 5-7) and these fields appear as printed text

characters or symbols on the left side of the rows in display 24 and handwritten data appears to the right of each field (column 6, lines 25-27) corresponding to said data comprises at least one of written text and a drawing.

4. Claims 12, 13, and 15 are rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent # 6,130,666 ("Persidsky") in view of U.S. Patent # 6,577,299 ("Schiller et al.") and further in view of US Patent # 4,638,118 ("Wang et al.") and in further view of US Patent # 5,294,792 ("Lewis et al.").

As for claim 12, the combination of Persdisky, Schiller, and Wang et al. fails teach a password and an identification number.

However, Lewis et al. teach an external mode switch may be employed by the user to turn "on" the pen computer, after which the user may write a programmable password (or pass-symbol) for the pen to become fully operational and then write a number, letter, and/or short phrase to shift the pen computer into the desired mode of operation (column 6, lines 45-51) and the general purpose processor may control the communications protocol employed by the transmitter. For example, in one mode the transmitter might transmit a packet of data with a unique user identification "number" at the start and/or end of each packet (column 6, lines 64-68).

It would have been obvious to utilize the password and identification number as taught by Lewis et al. in the modified self-contained pen disclosed by the combination of Persidsky, Schiller et al and Wand et al. because this would allow special users to get access to the database.

As for claim 13, Lewis et al. teach the pen computer of the present invention may be "pointed at" the user's host computer which includes therein a receiver compatible with a transmitter also included in the pen computer. Alternatively, once the memory is nearly full, or full, the pen may automatically download the stored data to the host computer; this may require a "hand-shake" type of communications protocol to ensure the host computer receives the data as it is sent. The user's host computer may be a PC, a minicomputer, a main frame, a portable, or a laptop computer. The transmitter in the pen will then transmit to the receiver of the host computer a serial stream of data corresponding to the recognized or compacted characters stored in the recognized memory. The data is preferably transmitted using a high message content protocol. The host computer may then display these characters on its screen display, perform certain operations on the data as it is received and display the results on the display screen, route the data to an internal memory associated therewith, or any combination of these actions (column 4, lines 38-58).

As for claim 15, Lewis et al. teach a plurality of illumination sources having different wavelengths at different locations adjacent to the writing surface. More particularly, there may be seen three illumination sources having at least two different wavelengths that are pulsed in a particular sequence to allow 360.degree. detectors for each wavelength within the pen computer near the writing end of the pen to determine the motion of the pen and thereby the symbols being written by the pen. One wavelength source is fixed and acts as a reference point and is pulsed before the other two sources (column 14, lines 15-25).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (571) 272-7692. The examiner can normally be reached on from Monday to Friday between 10:OOAM and 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (571) 272-7691.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(571) 273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Jean Lesperance

Art Unit 2629

Date 3/31/2006

RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600